

WHAT IS CLAIMED IS:

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1. An edge correction apparatus for a digital video camera, comprising:

5 a horizontal edge signal generator and a vertical edge signal generator for respectively generating horizontal and vertical edge correction signals in horizontal and vertical directions of a sensed image obtained via an image sensing element of a digital video camera;

10 a horizontal edge signal gain controller and a vertical edge signal gain controller for controlling gains of the horizontal and vertical edge correction signals respectively from said horizontal edge signal generator and said vertical edge signal generator;

15 an adder for adding the horizontal and vertical edge correction signals whose gains are controlled by said horizontal edge signal gain controller and said vertical edge signal gain controller;

20 a slice processor for adding, to an image processing signal of the digital video camera, an edge correction signal obtained by performing slice processing for an edge signal output from said adder; and

25 a vertical edge component suppression position detector for causing said vertical edge signal gain controller to execute gain control of the vertical edge

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correction signal in accordance with a horizontal difference signal output from said horizontal edge signal generator.

2. An apparatus according to claim 1, wherein the  
5 horizontal difference signal is a signal corresponding to a luminance difference between horizontally adjacent pixels that is output from said horizontal edge signal generator.

3. An apparatus according to claim 1, wherein the  
10 horizontal difference signal is a signal corresponding to an output difference in green signal between horizontally adjacent pixels that is output from said horizontal edge signal generator.

4. An apparatus according to claim 1, wherein the  
15 horizontal difference signal is a signal corresponding to a luminance difference between horizontally adjacent pixels that is output from said horizontal edge signal generator and a difference between digital video camera CCD output signals vertically adjacent at the same pixel  
20 position.

5. An apparatus according to claim 1, wherein the  
horizontal difference signal is a signal corresponding to an output difference in green signal between horizontally adjacent pixels that is output from said horizontal edge  
25 signal generator and a difference between digital video

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camera CCD output signals vertically adjacent at the same pixel position.

6. An apparatus according to claim 1, wherein gain control of the vertical edge correction signal by said vertical edge signal gain controller is executed when an amplitude of the horizontal difference signal exceeds a set threshold.

7. An apparatus according to claim 2, wherein gain control of the vertical edge correction signal by said vertical edge signal gain controller is executed when the luminance difference between horizontally adjacent pixels is not less than a set threshold.

8. An apparatus according to claim 3, wherein gain control of the vertical edge correction signal by said vertical edge signal gain controller is executed when the output difference in green signal between horizontally adjacent pixels is not less than a set threshold.

9. An apparatus according to claim 4, wherein gain control of the vertical edge correction signal by said vertical edge signal gain controller is executed when the luminance difference between horizontally adjacent pixels is not less than a set threshold, and outputs of vertically adjacent digital video camera CCD output signals are not more than the set threshold.

10. An apparatus according to claim 5, wherein gain

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control of the vertical edge correction signal by said  
vertical edge signal gain controller is executed when the  
output difference in green signal between horizontally  
adjacent pixels is not less than a set threshold, and the  
5 difference between vertically adjacent digital video  
camera CCD output signals is not more than the set  
threshold.

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